Claims

1. A separator for axial actuators including two positioner rings comprising at least three pairs of spiral raceways each movable contrary to the other comprising three spacers (4A, 4B, 4C) at least spirally interconnected to comply with the shape of the raceways in reducing the friction between said positioner rings (10, 12), whereby rotation of one positioner ring results in axial motion of the other positioner ring.

2. The separator as set forth in claim 1 wherein said spacers (4A, 4B, 4C) are made of a friction-reducing material.

3. The separator as set forth in claim 2, comprising
   a) three spiral surfaces (4A, 4B, 4C) each describing a circular arc of approx. 120° in roughly the width of said raceways and
   b) at least one cylindrical sleeve(6),
   c) whereby said spiral surfaces are secured to the inner or outer circumference of said at least one cylindrical sleeve (6).

4. The separator as set forth in claim 2, comprising
   a) three spiral surfaces (4A, 4B, 4C) each describing a circular arc of approx. 120° in roughly the width of said raceways and
   b) two cylindrical concentric sleeves (6, 6A) differing in diameter,
   c) whereby said spiral surfaces (4A, 4B, 4C) are secured between said cylindrical sleeves (6, 6A).

5. The separator as set forth in claim 2 comprising three spirally ascending spiral surfaces each describing a circular arc of approx. 120° in roughly the width of said raceways, whereby each spiral surface is connected at its upper end to the lower end of the adjoining spiral surface.

6. The separator as set forth in claim 1 wherein said spacers (4A, 4B, 4C) comprise

a) a cage complying to said three spirally ascending spiral surfaces each describing a circular arc of approx. 120° in roughly the width of said raceways,
b) said cage comprising rolling elements conventionally connected thereto.

7. The separator as set forth in claim 6 comprising
a) at least one cylindrical sleeve,
b) whereby said spiral surfaces are secured to the inner or outer circumference of said at least one cylindrical sleeve.

8. The separator as set forth in claim 6 comprising
a) two cylindrical concentric sleeves differing in diameter,
b) whereby said spiral surfaces are secured between said cylindrical sleeves.

9. The separator as set forth in claim 6 wherein each spiral surface is connected at its upper end to the lower end of the adjoining spiral surface.

10. The separator as set forth in any of the claims 2 to 5 wherein said friction-reducing material is a bronze alloy or a plastics material.

11. The separator as set forth in any of the claims 6 to 9 wherein said rolling elements (8) are rollers or needles.